DOCUMENT RESUME

ED 197 305 CS 005 839

TITLE Reading, Comprehension, and Memory Processes: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," July through December 1980 (Vol. 41 Nos. 1 through 6).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 80

NOTE 19p.: Pages may be marginally legible.

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Annotated Bibliographies: Cognitive Processes: *Doctoral Dissertations: Elementary Secondary Education: Higher Education: Memory: Psycholinguistics: *Reading Comprehension: Reading Instruction: *Reading Processes: *Reading Research: *Recall (Psychology): *Retention (Psychology)

IDENTIFIERS Piagetian Theory

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 31 titles deal with a variety of topics, including the following: (1) teaching strategies for reading comprehension: (2) strategies for assigning meaning to unfamiliar words in context: (3) differential processing of explicit and implicit information: (4) the effect of prose organization on recall: (5) reading and thinking skills of lawyers, law professors, and law students: (6) Zen and the art of reading: (7) the effects of reading purposes on comprehension: (8) a Piagetian model of reading comprehension: (9) the effect of folklore on the reading comprehension and attitudes of the Alaskan adolescent native: (10) psycholinguistic processes in reading: and (11) the effects of underlining and study time on comprehension and recall. (HTH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED197305

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Reading, Comprehension, and Memory Processes:

Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, July through December 1980 (Vol. 41 Nos. 1 through 6)

Compiled by the staff of the

ERIC Clearinghouse on Reading and Communication Skills

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

University Microfilms International

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

C SOO SP 39

The dissertation titles contained here are published with permission of the University Microfilms International, publishers of Dissertation Abstracts International (copyright © 1980 by University Microfilms International), and may not be reproduced without their prior permission.

This bibliography has been compiled as part of a continuing series designed to make information on relevant dissertations available to users of the ERIC system. Monthly issues of Dissertation Abstracts International are reviewed in order to compile abstracts of dissertations on related topics, which thus become accessible in searches of the ERIC data base. Ordering information for the dissertations themselves is included at the end of the bibliography.

Abstracts of the following dissertations are included in this collection:

Battistini, Edward Louis
A STUDY OF SECOND GRADERS' LEARNING DECENTRATION AND ITS EFFECTS ON THE LEARNING OF READING COMPREHENSION

Bird, Marlene Isabelle
READING COMPREHENSION STRATEGIES: A DIRECT TEACHING APPROACH

Boettcher, Judith Anne Vosika
FLUENT READERS' STRATEGIES FOR ASSIGNING MEANING TO UNFAMILIAR WORDS IN CONTEXT

Botthof, Richard Nels
READING STRATEGIES AND COMPREHENSION OF AVERAGE SECOND-GRADE READERS READING A BASAL TEXT WITH OR WITHOUT ILLUSTRATIONS

Bradshaw, Virginia Coffin
SPATIAL PERSPECTIVE TAKING AND READING COMPREHENSION ABILITY OF FOURTH GRADE STUDENTS

Cureton, Mary Deborah Brown
DIFFERENTIAL PROCESSING OF EXPLICIT AND IMPLICIT INFORMATION BY SKILLED AND DIFFERENCE FOURTH GRADE READERS

Deaton, Michael Edward
EFFECT OF ENCODING STRATEGIES ON LOGICAL AND PRAGMATIC IMPLICATIONS OF SENTENCES

Dilena, Michael James
CONCEPTUAL KNOWLEDGE AND THE CONSTRUCTION OF MEANING FROM WRITTEN TEXTS

Elliott, Stephen Nelson
EFFECT OF PROSE ORGANIZATION ON RECALL: AN INVESTIGATION OF MEMORY AND METACOGNITION

Gordon, Belita Marie
THE EFFECTS OF ORDER, RHETORICAL PREDICATE STRUCTURE, AND PASSAGE TOPIC ON THE RECALL OF DISCOURSE

Gordon, Christine JoAnna
THE EFFECTS OF INSTRUCTION IN METACOMPREHENSION AND INFERENCING ON CHILDREN'S COMPREHENSION ABILITIES

Hasse, James Joseph
THE EFFECT OF READING ABILITY, CONTENT ORGANIZATION, AND RECALL CONTEXT ON CHILDREN'S IDENTIFICATION OF MAIN IDEAS AND RETENTION OF PROSE

Hoffman, Cynthia K.
THE EFFECTS OF ACTIVATING ORGANIZATIONAL COGNITIVE STRATEGIES ON DELAYED THEMATIC PROSE RECALL

Kahn, Edward Stanton
READING/THINKING SKILLS OF LAWYERS, LAW PROFESSORS, AND LAW STUDENTS

Kameenui, Edward Joseph Koakuu
INVESTIGATING THE COMPREHENSION OF PRONOUN-REFERENT STRUCTURES BY FOURTH GRADERS IN EXPOSITORY AND NARRATIVE TEXT WITH VARIATIONS IN THE PRESENCE OR ABSENCE OF PRONOUN-REFERENTS AND PLACEMENT OF COMPREHENSION QUESTIONS

Klesius, Janell Putnal
THE EFFECT OF TEACHER FEEDBACK INSTRUCTION AND STUDENT SELF-DIRECTED INSTRUCTION ON DEVELOPING READING COMPREHENSION IN SIXTH-GRADE STUDENTS

Levy, Jack Jay
ZEN AND THE ART OF READING: READING WITH MIND, BRAIN AND BODY

Lickteig, M. Joan
AN INVESTIGATION OF THE EFFECTS OF READING PURPOSES ON THE COMPREHENSION OF SECOND-GRADE STUDENTS

Lincoln, Nancy Griffith
AN INVESTIGATION OF FIRST AND SECOND GRADERS' KNOWLEDGE OF ORTHOGRAPHIC STRUCTURES IN RELATION TO READING ABILITY

Morgan, Argiro Louchis
CHILDREN'S INFERENTIAL COMPREHENSION OF PRAGMATIC CAUSAL RELATIONS IN READING: A STUDY OF SOME SEMANTIC, CONTEXTUAL, AND SYNTACTIC VARIATIONS

Radebaugh, Muriel Rogie
EFFECTS OF PRE-ORGANIZED READING MATERIAL ON THE COMPREHENSION OF FOURTH AND FIFTH GRADE READERS

Reeves, Harolyn Hickman
THE INFLUENCE OF INTRABOOK READABILITY VARIATION ON READING COMPREHENSION

Roy, Sidonia B.
A PIAGETIAN MODEL OF READING COMPREHENSION

Sims, Celia Margot
THE EFFECT OF FOLKLORE ON THE READING COMPREHENSION AND ATTITUDES OF THE ALASKAN ADOLESCENT NATIVE

Smisek, Sharon O'Connell
DIFFERENCES BETWEEN GOOD/AVERAGE COMPREHENDERS AND POOR COMPREHENDERS ON RECALL OF EXPOSITORY MATERIAL AT EACH LEVEL OF USE OF TOP-LEVEL STRUCTURE AS AN ORGANIZATIONAL STRATEGY OF RECALL

Spitzer, Rosina
PSYCHOLINGUISTIC PROCESSES IN READING

Teitel, Beatrice
LANGUAGE AND PERCEPTION AS PREDICTORS OF READING COMPREHENSION

Thompson, Thomas John
THE EFFECTS OF UNDERLINING AND STUDY TIME ON THE COMPREHENSION AND RECALL OF PROSE MATERIALS

Torres, Frank John
COLLEGE FRESHMEN DETECTION OF ENCODED SEMANTIC, SYNTACTIC, GRAMMATICAL, AND MORPHOLOGICAL ERRORS AND THIS DETECTION'S RELATIONSHIP TO READING COMPREHENSION

Tremonte, Flavia Claudia
THE EFFECTS OF QUESTIONS WITH PIAGETIAN OPERATIONAL WORDS ON LEVELS OF INFERENCE

Wick, Thomas Mead
THEORIES OF READING: A REVIEW AND ANALYSIS OF AMERICAN RESEARCH ON PROFICIENT READING IN ITS SOCIAL CONTEXT

A STUDY OF SECOND GRADERS' LEARNING DECENTRATION AND ITS EFFECTS ON THE LEARNING OF READING COMPREHENSION

Order No. 8018708

BATTISTINI, EDWARD LOUIS, ED.D. *University of San Francisco*, 1979. 205pp. Chairperson: Dr. S. Alan Cohen

Does instruction in centration/decentration cause students to learn reading comprehension tasks better? Operationally, the study investigated performance on a reading comprehension test that requires awareness of meaning context after direct instruction in this type of comprehension was given to two groups: one group which had previously received direct instruction in cognitive development (decentration) and the second group which did not receive this instruction in cognitive development. This study's major hypothesis predicted that students who are ready to learn to decenter and are taught to "decenter" will be able to learn reading comprehension tasks more easily than those who are not taught to decenter.

Seventy-eight second graders were randomly assigned within their respective classrooms to experimental or control treatments. A centration/decentration treatment called CDT was given to the experimental group (E). The second level of this treatment was a placebo treatment involving auditory and visual discrimination drills. In order to detect the effect of the first part of the treatment, the Conservation Assessment Kit Test (CAKT) was given to both groups after the application of the E and P treatment levels and showed a CDT effect.

Following this cognitive training, E and P groups were combined and given reading comprehension instruction. A post reading comprehension test showed the hypothsized difference. It is important to note that the results of this study do not suggest that cognitive training causes better reading comprehension, but better response to instruction. There is no evidence in this study to suggest that a cognitive training per se will cause children to read better without direct instruction in reading comprehension.

Another general conclusion is that specific cognitive development areas are amenable to direct manipulation. It appears that when the children are ready, they can be taught a specific cognitive area, in the case of decentration. What this study does not show is how early such training can be affected.

The results indicated that sex differences in CAKT can be overcome in primary grade children, but it must be noted that the CDT training and testing (CAKT) involved stimulus specific phenomena. However, the effect of reading instruction after cognitive training showed consistent reduction of sex differences after only ten days of treatment.

A fourth finding again shows effects of direct instruction. The gap between higher and lower achievers on CAKT, after direct cognitive treatment, was closed and reversed. Some aptitude differences were, in effect, eliminated and, in fact, reversed. This short term effect must be considered in the light of the stimulus specific cognitive treatments and test.

The results of this study support the fact that students who have received cognitive training respond better to reading instruction than those who do not receive such training, irrespective of entry level and sex in all cases except one. This study suggests that increased attention to preparing students with cognitive skills prior to teaching of certain reading skills is important.

As a result of this study, it was concluded that children's reading ability may be causally related to cognitive development.

READING COMPREHENSION STRATEGIES: A DIRECT TEACHING APPROACH

BIRD, MARLENE ISABELLE, PH.D. *University of Toronto (Canada)*, 1980.

The purpose of this study was two-fold. The primary purpose was to investigate the efficacy, in increasing the use of several overt reading strategies, of a direct teaching approach designed to increase subjects' awareness of these strategies. The second purpose was to investigate the effect of increased use of these overt strategies on reading comprehension.

Four overt reading comprehension strategies were chosen from among those demonstrated by mature readers. These strategies--paraphrase, backtracking, problemsolving, and demanding relationships--were taught to 46 7th and 8th grade average readers randomly assigned to three treatment conditions. In the Explanation (or direct teaching) condition, subjects received explanation of the strategies, modeling of their use, practice in identifying the strategies, and practice in using the strategies. In the Modeling condition, subjects received modeling of the use of the strategies and practice in the use of the strategies, but no explanation of identification practice. In the Exercise condition, subjects received verbal and written exercises designed to develop the use of the four strategies. In a fourth condition, 16 additional subjects served as a non-treatment control.

It was hypothesized that on measures of strategy use and reading comprehension, subjects trained by explanation and modeling of the four strategies would demonstrate greater gain than subjects trained by modeling alone, who would show greater gain than subjects trained by exercises, who would in turn show greater gain than subjects given no training.

Strategy use was assessed on the basis of the statements made when subjects were instructed to state their thoughts while reading aloud. Two measures of reading comprehension were used: the Nelson silent reading test (the Nelson Reading Skills Test as pretest and the Nelson-Denny Reading Test as posttest); and the Metro oral reading comprehension test (a series of passages from the Metropolitan Achievement Test).

Strategy use was analyzed by a multivariate analysis of variance on the pretest to posttest difference scores for the four strategies. A univariate analysis of variance was conducted on pretest to posttest gain in total number of statements made. Reading comprehension was analyzed by a multivariate analysis of covariance with posttest scores as dependent variables and pretest scores as covariates. Within the Explanation group, posttest scores on measures of reading comprehension and strategy use were correlated, with pretest scores partialed out.

Results indicated that in relation to subjects in other conditions, subjects in the Explanation condition increased significantly in both strategy use (on three of the four strategies) and reading comprehension (both measures), whereas there were no significant differences among the other groups. On the measure of total number of statements made, there was no significant difference between the Explanation and Modeling groups. The correlation of reading comprehension and strategy use within the Explanation group was insignificant. These results indicate that the direct teaching method was effective in increasing strategy use and effecting reading comprehension gain unrelated to mere increase in general verbalization. Results are interpreted in terms of the role of explanation in increasing subjects' awareness of these strategies and their use of them. The fact that the group increasing in strategy use also improved the reading comprehension whereas the groups showing no increase in strategy use showed no improvement in reading comprehension, suggests a positive relationship between these two variables. The low correlation between these two variables in the Explanation group is discussed in terms of lack of precision of the measure of strategy use.

The findings of this investigation provide some support for the direct teaching method and for the role of overt reading strategies in reading comprehension, and warrant further investigation of these issues.

FLUENT READERS' STRATEGIES FOR ASSIGNING MEANING TO UNFAMILIAR WORDS IN CONTEXT

Order No. 8019516

BOETTCHER, JUDITH ANNE VOSIKA, PH.D. *University of Minnesota*, 1980. 500pp.

This study examined the strategies that skilled readers use when asked to assign meanings to unknown words in context. The study proceeded in three phases. The third and major phase of the study was the interview phase which recorded students' responses to questions regarding difficult words. The first two phases served to (1) verify the difficulty of the words used in the study, (2) provide criteria for selecting the students to participate in the interview, and (3) provide data on the generalizability of the strategies identified in the interviews. The subjects in the first two phases were 47 eighth, 51 tenth, and 64 twelfth graders. A subset of 18 students, six from each grade level, and two from three reading levels (high, middle, low) were used for the interview phase.

The materials for the interview consisted of nine paragraphs, each containing one target unknown word, and a set of interview questions designed to determine (1) what students did upon encountering an unknown word, (2) the reading strategies used by students in trying to determine the meaning of the unknown word, and (3) the student's degree of knowledge of the unknown word; and a nine-item multiple choice vocabulary test. The nine unknown words included three words at each of three levels of difficulty (tenth, twelfth, and sixteenth) and three words from each of three word classes (noun, verb, and adjective).

The responses to the first interview question, that of what students did upon encountering an unknown word, were classified using a six category classification scheme. The categories and percentage of responses in each category were (1) Skipped/Skimmed - 9%, (2) Looked - 7%, (3) Read/Recognized -22%, (4) Reread/Used Context - 20%, (5) Pronounced - 8%, and (6) No Action Indicated -35%. Chi-square analyses showed statistically significant differences ($p < .001$) in the number of students' responses between grade level and reading level.

Responses to the second interview question, that of what strategies were used by the students in determining the meaning of the unknown word, were classified into a nine category classification scheme. The categories and the percentage of responses in each category were (1) Word Known/No

Strategy Indicated - 7%, (2) Word Part Analysis - 10%, (3) Recall - 4%, (4) Lexical Association - 33%, (5) Graphic Association - 21%, (6) Syntactic Awareness - 17%, (7) Experience - 5%, (8) Paragraph Restatement - 2%, (9) Rereading/No Decision - 2%. Chi-square analyses showed a statistically significant difference ($p < .001$) in the number of students' responses between reading level, but not between grade level. Chi-square analysis also showed a statistically significant difference ($p < .001$) in the number of students' responses between word class.

Responses to the third question, that of the student's knowledge of the unknown words, were classified into a five category classification scheme of word knowledge. The categories and percentage of responses in each category were (1) Correct Definition - 15%, (2) Correct Explanation - 6%, (3) Partially Correct Definition - 32%, (4) Wrong Definition - 44%, and (5) No Answer - 3%. Chi-square analyses of these responses showed a statistically significant difference ($p < .001$) between word class.

An analysis of the success rate of the strategies showed that the most successful strategy for determining meaning was Recall (56%). The next two most successful strategies were Graphic Association (44%) and Syntactic Awareness (44%). The least successful strategy was that of Paragraph Restatement (20%).

Finally, a comparison of the strategies used by the students in the interviews upon first encountering a difficult word with the strategies used by students in phase two showed that the strategies used by students in the interview were generalizable to the larger population of students.

READING STRATEGIES AND COMPREHENSION OF AVERAGE SECOND-GRADE READERS READING A BASAL TEXT WITH OR WITHOUT ILLUSTRATIONS

Order No. 8027506

BOTTHOF, RICHARD NELS, PH.D. *The University of Oklahoma*, 1980. 112pp. Major Professor: Dr. Richard P. Williams

The purpose of this study was to explore the possible effects of illustrations in basal readers upon the reading performance of average-ability second-grade readers through an analysis of oral reading errors and retelling scores. The Reading Miscue Inventory (Goodman, 1972) was selected as the instrument to analyze the subjects' oral reading errors and as the basis for determining retelling scores. Selections from the Houghton-Mifflin basal reader series were chosen for the oral reading activity. Subjects for the study included 21 boys and 19 girls chosen randomly from an average-ability population of 130 second-grade children attending three elementary schools in Andover, Rose Hill, and Augusta, Kansas. The sample of 40 children was randomly divided into control and experimental groups.

Two general questions were posed from which eleven hypotheses were developed to guide the investigation: (1) Are there significant differences in the oral reading strategies of average-ability second-grade students who read a basal text with illustrations and the oral reading strategies of average-ability second-grade students who read a basal text without illustrations as measured across ten miscue variables: graphic similarity, sound similarity, grammatical function, nonwords, corrections, grammatical acceptability, semantic acceptability, meaning changes, repeated and multiple miscues, and correction of repeated and multiple miscues? (2) Are there significant differences in students' ability to retell a story read for average-ability second-grade students who read a basal text with illustrations and for average-ability second-grade students who read a basal text without illustrations? Text "without illustrations" was an identical basal reader with illustrations covered with construction paper. Since the study was designed to search for possible influences of illustrations on reading performance, a two-tailed test was used with a $p > .05$.

An independent measures t-test analysis of the data indicated no significant differences across any of the eleven variables as measured by the Reading Miscue Inventory. There was no indication in the results of this study that pictures as cues have a discernible effect upon reading performance, either as a source of assistance or as a source of distraction.

In was concluded that miscues reflect responses to the surrounding text to a greater extent than they reflect responses to alternative cues, such as illustrations. It appears that illustrations have less immediate influence upon recognition responses as that of graphic stimuli. Apparently the partial contribution to subjective redundancy made by illustrations is too slight to be measured by miscue analysis. It was further concluded that the results of this study do not support the "contextual hypothesis" forwarded by Goodman, nor do they indicate that illustrations either contribute to or detract from reading comprehension as reflected in retelling scores.

Although the non-significant results as $p > .05$ in this study can be interpreted as an indication that illustrations have no effect upon this kind of reading behavior, the fact that results for correction of miscues were significant at $p > .10$ should warrant further consideration.

SPATIAL PERSPECTIVE TAKING AND READING COMPREHENSION ABILITY OF FOURTH GRADE STUDENTS

Order No. 8027507

BRADSHAW, VIRGINIA COFFIN, PH.D. *The University of Oklahoma*, 1980. 75pp. Major Professor: Robert L. Curry

Reading is a communication medium for the expression and reception of meaning between an author and a reader. According to Piagetian cognitive developmental theory, verbal communication is dependent upon the speaker's ability to put himself in the place of the listener and construct a message the listener will be likely to understand. Piagetian theory has been applied to reading to explain the acquisition of reading skills, particularly work attack skills, and below grade level readers have been found to score significantly lower on tasks of conservation than did children reading at or above grade level. However, a review of the literature revealed no study of reading comprehension in terms of the reader's ability to take another person's point of view.

The basic purpose of this study was to determine whether nine year olds capable of taking another's literal spatial perspective performed better on a test of reading comprehension than did nine year olds who could not successfully "decenter" from their own points of view. Two hundred fifty fourth graders, 126 males and 124 females, age 9.0 to 9.6 were administered the Coordination of perspectives test, a variation of Piaget and Inhelder's three-mountain task, and the STEP Series II Reading test, a group test of reading comprehension.

A two-way analysis of variance of mean reading comprehension raw scores and stage of perspective taking revealed no statistically significant differences. A subsidiary phase of the study involved analysis of each group's performance on different item types of the reading comprehension test. Results were interpreted as evidence of a trend toward increased comprehension of items which required understanding the author's point of view with increase in stage of spatial perspective taking.

DIFFERENTIAL PROCESSING OF EXPLICIT AND IMPLICIT INFORMATION BY SKILLED AND DIFFERENCE FOURTH GRADE READERS

Order No. 8015192

CURETON, MARY DEBORAH BROWN, PH.D. *The University of Wisconsin - Madison*, 1980. 93pp. Supervisor: Dale D. Johnson

This study investigated how difference readers and skilled readers process information while listening and reading. The study was designed to determine if skilled and difference readers vary in their ability to remember explicit information and to process implied relationships when hearing and reading prose. Also of interest was whether difference readers make inferences equally when listening and when reading and whether their ability to infer equals their ability to recall verbatim information.

Eighty-four fourth grade readers were selected on the basis of scores on the vocabulary and comprehension subtests of the *Comprehensive Test of Basic Skills* (McGraw-Hill, 1973) from a total of 506 fourth graders who formed the subject pool. Each subject heard or read six prose passages. After each passage, each subject answered six yes-no questions. The responses were analyzed for amount of verbatim recall and lexical and contextual inferences. Scores from skilled and difference readers were compared for both the listening and reading conditions. Scores from difference readers in the listening group were compared with scores from difference readers in the reading group. In the difference reading group, scores for verbatim recall items were compared with scores for inferences.

Results revealed no significant difference between the skilled and difference groups in their ability to recall verbatim information whether listening or reading. Differences between the groups when making lexical and contextual inferences were not significant under either condition nor was there any significant difference between the ability of difference readers to make inferences and remember explicit information from the stories.

It was concluded that in as much as difference readers are poor readers (relative to skilled readers and to their own potential), their effective use of inferencing is not different from that of good readers.

EFFECT OF ENCODING STRATEGIES ON LOGICAL AND PRAGMATIC IMPLICATIONS OF SENTENCES Order No. 8017793

DEATON, MICHAEL EDWARD, PH.D. *The University of Arizona*, 1980. 67pp. Director: Glen I. Nicholson

The effects of three encoding strategies, induced imagery, paraphrasing and rehearsal (silent repetition) on the memory of subjects for logical and pragmatic implications of simple, concrete sentences were investigated.

Subjects were randomly assigned to one of three experimental conditions, each condition having a set of instructions read to them requesting that they employ one of the above strategies to memorize a list of sentences. A control group of subjects was merely asked to memorize the sentences as best they could in the time allowed. No strategy was suggested.

After an intervening task, a recognition test was administered to all the subjects. The number of recognition errors for each group was scored.

There were no significant treatment effects or interactions revealed by analysis of variance. A highly significant effect for type of sentence was, however, found. Subjects made a greater number of errors on both pragmatic and logical implications than on false inferences. Support is added to the constructive approach to memory.

CONCEPTUAL KNOWLEDGE AND THE CONSTRUCTION OF MEANING FROM WRITTEN TEXTS Order No. 8014038

DILENA, MICHAEL JAMES, ED.D. *Harvard University*, 1979. 169pp.

Rationale. Simplistic notions of text difficulty have led some teachers and publishers to see the writing of comprehensible texts as merely a matter of presenting information in simple language. Similarly teachers and researchers have often seen comprehension difficulties as being primarily caused by difficult language.

However, the research on readability (Chall, 1958; Klare, 1963) suggests that, while measures of linguistic or "expressional" features are useful predictors of reading difficulty, such measures must be balanced by consideration of other, non-linguistic, factors.

Dale and Chall (1949) for example, point out that conceptual difficulty is not directly measured in readability formulas. Lorge (1949) suggests that the concepts within a passage may be involved and abstract because the ideas are remote from the experience of the reader. Dolch (1949) refers to "idea difficulty" which he defines as the degree of remoteness from the reader's past experience. He points out that word meanings may be familiar, but they may be put together to make a statement that has little relation to the reader's experience or thinking. Dolch suggests that this factor has been little studied except in a count of abstract terms, but it is "of first importance in reading matter that concerns fields of experience and thought into which children have had little chance to enter."

A central issue, then, is the extent to which failure to understand texts can be seen not simply as a failure to understand the language but also as the result of inadequate conceptual knowledge as Carroll (1971) and other suggest.

Questions addressed. The present study sought to discover whether the amount and kind of information which is retained after reading expository texts is crucially determined by how well the conceptual content of the text relates to what the reader already knows. In particular, the study tested the hypothesis that young, relatively inexperienced readers retain information from text only when they can relate it to existing knowledge. It also investigated whether older, experienced readers are similarly dependent on prior knowledge to make sense of passages, or whether their greater experience with reading enables them to get just as much information from unfamiliar material as from familiar material.

A secondary objective of the study was to compare the effectiveness of three measures in discriminating between the comprehension of familiar and unfamiliar passages. The three measures used were: (1) analysis and scoring of readers' free and prompted recall of passages; (2) scoring readers' performance on "cloze" tests of passages (i.e., filling in deleted words); (3) analysis and scoring of the "miscues" made in the oral reading of passages.

Subjects and techniques used. Two groups of readers (sixth-graders and first-year college students) were presented with pairs of passages which, although matched for expressional features such as word familiarity and sentence complexity, were quite different in terms of the familiarity of information they contained. The amount and kind of information retained after reading "familiar" and "unfamiliar" passages were determined by comparing free and prompted recall protocols with propositional "templates" of the passages. Results from recall were then compared with results from cloze tests of the passages and with "comprehending scores" calculated from "miscues" made during oral reading of the passages.

Main findings. The results of the study confirm the importance of prior conceptual knowledge in reading comprehension. Although the kind of information retained by sixth-graders and adults after reading familiar passages was similar to that retained from unfamiliar passages, the amount of information retained from familiar passages was much greater for both groups of subjects. There were no marked differences between sixth-grade and adult performance on the three measures used. Recall better discriminated between comprehension of familiar and unfamiliar passages than either cloze test scores or miscue comprehending scores.

EFFECT OF PROSE ORGANIZATION ON RECALL: AN INVESTIGATION OF MEMORY AND METACOGNITION Order No. 8017007

ELLIOTT, STEPHEN NELSON, PH.D. *Arizona State University*, 1980. 231pp.

Sixth graders' memory and metacognitive knowledge of organized prose were investigated in a study with experimental and descriptive phases. In the experimental phase, 102 students with good reading comprehension skills read a short, expository passage organized according to an adversative or an attribution top-level structure. All students read the passage at least once and recalled it twice, immediately and after a 48-hour delay. Students were assigned randomly to one of four instructional treatments (do nothing; select retrieval cues; select and use retrieval cues; and reread the passage) which influenced what they did to prepare for the delayed recall. The number of idea units recalled by each student after the 48-hour delay was scored and analyzed. The adversative and the attribution top-level structures affected students' recall differentially. This effect, however, was most pronounced for students in the reread instructional treatment; students who reread the adversative version of a passage recalled over twice as many idea units as students who reread the attribution version. Students' recall of adversative or attribution versions of the passage under the other three instructional treatments did not differ significantly. Another aspect of prose recall was whether or not students who used the author's top-level structure to organize their recall protocol remembered significantly more idea units than students who used some alternative organizational schema.

In the descriptive phase of the study, 102 students were given a metacognitive questionnaire concerning reading and remembering prose. Twenty-four of the students were also given a five-item metacognitive interview. The combined results of these metacognitive instruments suggested that many sixth graders were aware of differences in prose organization and were knowledgeable of various factors that affect memory performance. Metacognitive knowledge was found to be a better predictor of memory performance than reading comprehension scores.

THE EFFECTS OF ORDER, RHETORICAL PREDICATE STRUCTURE, AND PASSAGE TOPIC ON THE RECALL OF DISCOURSE Order No. 8019995

GORDON, BELITA MARIE, PH.D. *Georgia State University - College of Education*, 1980. 180pp.

Purpose. The purpose of the investigation was to determine the effects of the order in which a passage is read in a series, the organizational structure of the passage, and the topic of the passage on the comprehension and recall of discourse, as measured by a comparison of the recall text-base against the standard passage text-base. The research was based on the text-base analysis procedures reported in Kintsch's *The Representation of Meaning in Memory* (1974). It was the intent of the researcher to extend prior research which employed short and/or simple discourse through the use of lengthy and complex discourse. An additional concern in the investigation involved an examination of the qualitative nature of the recall protocols in terms of argument schema, levels of propositions, and reproductive versus reconstructive memorial processes.

Methods and Procedures. The investigation, a 3 x 3 x 3 fractional factorial experiment with confounding of lower and higher order interactions, was modeled on Winer's (1960) Plan 11. In order to increase the information available on all interaction effects, the investigation included two replications. Different components of the two-factor and three-factor interactions were confounded in each replication. A separate univariate analysis was completed for each dependent variable. Tukey's HSD procedures were applied to follow up the significant *F* tests. In order to analyze the data for argument schema categories, Cochran's Q was employed.

Nine experimental passages, each approximately 220 words in length, were written for the investigation. Passages were constructed in sets of three, with three topics (wage and price controls, energy crisis, use of a surtax) varied by three top-level rhetorical predicate structures (attribution, adversative, covariance). A standard passage text-base was constructed for each passage.

The 90 participants in the study were enrolled in either English 112 or an academic skills seminar at Georgia State University. Each subject read three passages (one for each topic and structure) and wrote recall protocols. A total of 270 protocols were produced in the study.

A recall text-base was written for each protocol in order to compare the contents of the protocol with the information in the passage on which the protocol was based. Each protocol was scored by comparing it with the appropriate standard passage text-base. Protocols were scored for the recall of propositions explicit in the standard text-base, for the addition of propositions implicit in the standard text-base (positive intrusions) and for the presence of errors (negative intrusions). Additionally, protocols were scored for argument schema categories at the propositional and inferential level.

Results. Both the order in which a passage was read and the topic of the passage significantly affected the number of explicit and implicit propositions produced in the free recall task. Passage topic also significantly affected the number of errors made in recall. Predicate structure did not significantly affect recall on any measure. Macrolevel propositions were recalled one and one-half times more often than microlevel propositions. Recall was essentially reconstructive in nature, with recall protocols containing three times as many implicit as explicit propositions and following the pattern established by the categories of information contained in the argument schema.

THE EFFECTS OF INSTRUCTION IN METACOMPREHENSION AND INFERENCING ON CHILDREN'S COMPREHENSION ABILITIES

Order No. 8019528

GORDON, CHRISTINE JOANNA, PH.D. *University of Minnesota*, 1980. 305pp.

This study examined the effects of two instructional strategies on the comprehension of narrative selections in a natural classroom setting. Both strategies derive from recent schema-theoretic notions of reading comprehension and children's metacomprehension abilities.

To examine the generalizability of effects attributable to the two experimental treatments, the design included two additional factors: reading ability and accessibility of text while answering wh-probes. In addition, four types of dependent measures were administered: (1) comprehension questions on instructional selections, (2) written recall, (3) experimenter-designed comprehension posttests (using unfamiliar selections) under text access and no text access conditions given immediately after intervention and after a time delay, and (4) a standardized reading test. Comprehension questions investigated textually explicit, textually implicit and scriptally implicit relationships.

The subjects were 42 fifth grade children of average and above average reading ability using the same basal reader in one school. Children were randomly assigned to one of three treatment groups (Content and Structure, Inference-Awareness, and Control) and received daily 10 minutes of differential related to each basal selection and 20 minutes of the regular basal reading program. During each 10-minute period, the Content and Structure group received instruction to improve pre-existing content schemata and knowledge of the macrostructure of text. The Inference-Awareness group was given training in the use of a metacognitive strategy designed to improve ability to make text-based inferences and to relate prior knowledge (content schemata) to textual elements. The Control group received "differential" instruction in language-related, literature appreciation or creative activities pertinent to the basal reader story.

The experiment employed a 3 x 2 fixed factorial design with treatment at three levels and reading ability at two levels as between-subject factors. A separate two-way completed crossed analysis of variance was used to analyze total overall scores and each specific comprehension or text structure category.

Differences in comprehension and recall were found to exist as a function of treatments. On the instructional story worksheets, the significantly better performance ($p < .05$) of the Inference-Awareness group over the Content and Structure and Control groups on total overall comprehension and total inferential comprehension is directly attributable to their strong ability in drawing scriptally implicit relationships ($p < .01$). The Content and Structure group also significantly outperformed the Control group on scriptally implicit comprehension but their performance never attained the level of the Inference-Awareness group.

The Content and Structure group significantly exceeded ($p < .01$) both the Inference-Awareness and the Control groups on total overall written recall on the final instructional selection. These treatment differences were found to be a function of the Content and Structure group's significantly better performance ($p < .05$) on four specific text structure categories.

No significant treatment effects ($p > .05$) were found on the immediate and delayed experimenter-devised comprehension tests administered under text access and no text access conditions nor on the standardized reading test. Interactive effects ($p < .05$) became evident on the experimenter-designed test under no text access conditions. On total inferential comprehension, the high ability readers in the Inference-Awareness group performed significantly better than readers of the same ability in the Control group.

High ability students out performed average ability students on all comprehension categories assessed by wh-probes and on the standardized reading test. Written recall protocols, while revealing treatment differences showed few effects for reading ability.

These findings provide support for the contentions that (1) both pre-existing schemata and metacognitive strategy use (knowing when and how to use content schemata) are important factors in constructing implied relationships, and (2) the effectiveness of instructional strategies varies under specific task demands.

THE EFFECT OF READING ABILITY, CONTENT ORGANIZATION, AND RECALL CONTEXT ON CHILDREN'S IDENTIFICATION OF MAIN IDEAS AND RETENTION OF PROSE

Order No. 8015462

HASSE, JAMES JOSEPH, PH.D. *Purdue University*, 1979. 108pp. Major Professor: Ronald E. Johnson

The present study sought to investigate the influence of certain variables on children's subjective organization of expository prose. Identification of a main idea for a passage was hypothesized to be a vital step in the integration of related information. An investigation was made of the learner's sensitivity to main ideas in text and the relative value of three types of retrieval cues. These cues consisted of the reader's own statement of what was perceived to be the main idea of a passage, a main idea supplied by the experimenter, or a sub-idea supplied by the experimenter. In addition, the organizational format of the materials was varied in an attempt to influence the ease with which the information could be subjectively organized. This involved manipulating the contiguity of ideas necessary to form a cause/effect inference.

Included in the research were the independent variables of (1) reading ability (either high or low), (2) content organization (adjacent versus dispersed cause/effect statements), and (3) three types of recall cues. The dependent variables were the number of correct main idea identifications and the number of sentences recalled.

Fifty-four fifth grade students read six 170-word passages. After each passage, the learners wrote what they believed to be the main idea of the passage, and a cued recall took place approximately three and one-half hours later. The results indicated that good readers performed better than the poorer readers in correctly identifying main ideas and in recalling the passages. As predicted, more correct main idea identifications occurred for the adjacent-statement condition, but contrary to expectations, the content structure variable had no effect upon the recall outcome.

The experimenter-supplied main idea statement proved to be the most effective recall cue, even when the learner's initial main idea statement was incorrect. Recall was poorest for the learner-generated cue, again, regardless of the correctness of the statement. The sub-idea statement was mid-range in effectivenss as a retrieval cue. Analysis of the effects of the sub-idea cue indicated that recall was greater for the dispersed textual condition and that sentences were equally likely to be recalled from either the cued or the non-cued paragraph.

Analyses of recall also were conducted in which account was taken of the student's accuracy on the main idea task. It was found that the total amount of information retained was greater when the learner had initially stated a correct main idea. In separate analyses of the three cuing conditions, however, accuracy in identifying main ideas was not related to subsequent recall.

The discussion of results focused primarily on interpretations of the unanticipated experimental findings. Learner-generated cues were questioned as to their retrieval effectiveness. The relative value of the sub-idea cue was believed to be a function of the fact that this statement was still an integral part of the content structure. The role of main identification in the subjective organization process also was discussed.

Educational implications of the findings were considered. The focus was on the possible value of main idea identification in the learning and retention of information. Attention was also directed to the potential value of various retrieval cues and different content organizations.

THE EFFECTS OF ACTIVATING ORGANIZATIONAL COGNITIVE STRATEGIES ON DELAYED THEMATIC PROSE RECALL

Order No. 8016665

HOFFMAN, CYNTHIA K., PH.D. *The Florida State University*, 1980. 95pp. Major Professor: Robert M. Gagne

The purpose of this study was to determine the effects of instructions designed to activate two organizational cognitive strategies, on two types of delayed free recall of prose. The first type of recall measured was recall of major themes, and the second type was overall recall of themes and supporting details. The two organizational cognitive strategies which the instructions were designed to activate were paraphrasing and searching for themes. The study also attempted to determine if students' reading comprehension ability displayed an interaction with the cognitive strategy activation instructions they received, to produce effects on recall of both types.

The study was conducted in a typical middle school setting with classroom size groups ranging from sixteen to forty-five students. One hundred and four sixth grade students were rank ordered in terms of their reading comprehension ability, and then randomly assigned to three treatment groups, so that the treatment groups were similarly distributed with respect to reading comprehension level. One treatment group received a prose passage to read, along with instructions designed to activate a theme-searching strategy to store the passages for delayed free recall. The second group received the same prose passage along with instructions designed to activate a paraphrasing strategy to store the passage for delayed free recall. The third group -- the control group -- received the same prose passage as the other two groups; their instructions directed them only to reread the passage for delayed recall, rather than to use organizational strategies for storage.

The prose passage used for the study was taken from a standard fourth-grade level reading textbook. In order to avoid effects due to differing lengths of time on task with the prose passage, the instructions were designed so that all three sets were parallel in terms of length and difficulty. Difficulty of the instructions was determined by sentence length, length and phonetic regularity of words, context placement of important ideas, and formatting of the print on the page.

Each group was told to read the passage once and then close their booklets. After all students had done this, they were told to reopen their booklets and follow the treatment instructions. All students were given twenty minutes to read the brief instructions and review the prose passage for later recall. The students were given a free recall test five days later, which was scored by a pair of judges for theme recall and overall recall. The scoring guide employed was based on a linguistic model designed to break down the content of the prose passage into ideas high and low in structural importance, and their supporting details. On a trial sample of thirty recall protocols, the judges had a high level of agreement in classifying the student recall protocols (in their own words) as actual ideas or details in the target prose passage (Pearson correlation coefficient = .97 for theme recall and .99 for overall recall).

The cognitive strategy activation treatments were not found to have a statistically significant effect on either type of delayed recall obtained after five days. Nor were there any significant interaction effects found between the cognitive strategy activation treatments and students' reading comprehension level for either type of delayed recall. Existing research results were reconfirmed in this study with the finding that students' reading comprehension level had a significant effect on delayed recall of both types ($p \leq .001$ for theme recall and $p \leq .002$ for overall recall).

READING/THINKING SKILLS OF LAWYERS, LAW PROFESSORS, AND LAW STUDENTS

Order No. 8023599

KAHN, EDWARD STANTON, PH.D. *Rutgers University The State U. of New Jersey (New Brunswick)*, 1980. 226pp. Chairperson: Martin Kling

The study formulated an array of legal thinking skills drawn from the literature, interviews with professors and practitioners, and pilot studies in an attempt to focus on the thinking skills necessary for high level functioning in legal education and trial law.

The study addressed questions involving rating the importance of the legal thinking skills for high level functioning in law school and trial law by lawyers, law professors, and law students. In addition comparisons of these thinking skills were made using year of law school or experience teaching law or experience practicing law, sex, and race as independent variables. Finally the skill array was categorized according to the Bloom taxonomy.

A questionnaire was developed from the literature, interviews with professors and practitioners, as well as pilot studies. This was distributed to a sample of law students (N = 107) and law professors (N = 14) of the Rutgers Law School-Newark and lawyers and judges (N = 34) of New Jersey.

The main findings were that the legal thinking skills that the respondents felt were most important for doing well in law school were essentially the same kind of skills considered least important for doing well in the practice of trial law.

For the most part, year of law school or experience teaching law or practicing law, sex, or race did not significantly affect the rating of the importance of the surveyed legal skills in law school or trial law. There was no indication that law students learn what is required of them to do well in law school once they enter law school. They enter law school with the same notion of what is required of them to do well in law school with which they graduate.

The major difference in the rating of the various skills was for what the skills would be used. The most important skills for doing well in law school were the same skills considered least important for doing well in trial law. Conversely, the skills rated as most important for doing well in trial law were the same skills considered least important for doing well in law school.

Some implications of the study may be that law schools have limited their scope too much by providing only excellent training for certain analytical skills, that is, training to think like a lawyer. Accordingly, the results may also indicate that there may be a need for establishing courses in the various areas of legal specialities with an emphasis on the skills required for the speciality as well as the substantive law of the speciality. This may indicate the need for more specialized law school training during the second and third year. Further significant areas of future research might explore: (1) cognitive style of law students and lawyers; (2) a comparison of the relationship between the ranking of law students with a high grade point average and those with a low grade point average of the importance of skills for doing well in law school with that of law professors: and (3) the development of what other skills should be emphasized in addition to the cognitive. For example, communication skills, advocacy, counseling and interviewing, and policymaking.

INVESTIGATING THE COMPREHENSION OF PRONOUN-REFERENT STRUCTURES BY FOURTH GRADERS IN EXPOSITORY AND NARRATIVE TEXT WITH VARIATIONS IN THE PRESENCE OR ABSENCE OF PRONOUN-REFERENTS AND PLACEMENT OF COMPREHENSION QUESTIONS

Order No. 8024867

KAMEENUI, EDWARD JOSEPH KOAKUU, PH.D. *University of Oregon*, 1980. 194pp. Adviser: Douglas W. Carnine

The purpose of this investigation was to determine the extent to which fourth-grade students had difficulty answering literal comprehension questions that were asked either during or following the reading of expository and narrative passages in which intersentence and intrasentence pronoun-referent structures were either included or omitted. Sixty fourth graders were randomly assigned to four treatment conditions. Each subject read four different passages: (1) an expository passage of approximately 250 words taken from a state adopted social studies text that included approximately 25 intersentence and intrasentence pronoun-referents; (2) a different expository passage that had been rewritten with the 100 pronoun-referents omitted and replaced with antecedent-referents; (3) a narrative passage of approximately 250 words taken from a state adopted reading text with the same density of pronoun-referents; (4) a different narrative passage that had been rewritten with pronoun-referents omitted and replaced with antecedent-referents. Each subject was required to answer four questions specific to the pronoun-referents and four general literal comprehension questions for each passage. Subjects in treatment conditions I and II were asked questions following passage reading, while subjects in treatment conditions III and IV were asked questions during passage reading. Subjects were worked with individually and passages were counterbalanced across and within treatment conditions.

A three-way ANOVA with one between-groups factor (placement of comprehension questions) and two within-group (repeated) factors (type of prose and presence or absence of pronoun-referents) was performed on scores from the literal comprehension questions. Separate analyses were conducted on responses to the pronoun specific questions and the general literal comprehension questions. The results of these analyses suggest that expository passages involving social studies content are more difficult to comprehend than narrative, story-like passages for both question types. However, when pronoun-referents were omitted from expository passages, comprehension was significantly greater for pronoun-specific questions. The results also indicate that expository passages are more comprehensible when both types of comprehension questions are asked *during* passage reading instead of following passage reading.

These findings provide further empirical evidence in support of the need for systematic instruction in teaching elementary-age children a strategy for identifying and simplifying various syntactic structures, especially pronoun-referent structures.

THE EFFECT OF TEACHER FEEDBACK INSTRUCTION AND STUDENT SELF-DIRECTED INSTRUCTION ON DEVELOPING READING COMPREHENSION IN SIXTH GRADE STUDENTS

Order No. 8018842

KLESIUS, JANELL PUTNAL, PH.D. *The Florida State University*, 1980. 259pp. Major Professor: C. Glennon Rowell

The primary purpose of this study was to compare a student self-directed method for developing comprehension of explicitly stated meanings and implicitly stated meanings with a teacher-directed method of comprehension instruction. A secondary purpose was to determine which instructional method was most beneficial for low-average readers and high-average readers.

The participants in this study were 129 sixth grade average readers at a sixth grade center in an inner-city locale. The students were bused from six different feeder schools, and their home backgrounds ranged from a low socio-economic level to a high socioeconomic level. Six classes of students were involved in the study. Two each were randomly assigned to Teacher Feedback Instruction (TFI), Student Self-Directed Instruction (SSDI), and control group (CG) treatments.

Comprehension materials were developed and piloted by the investigator to be used with each of the experimental treatment groups. The materials used were expository passages with eight comprehension questions for each passage. The questions included four questions to provide practice in comprehension of explicitly stated meanings and four questions to provide practice in comprehension of implicitly stated meanings.

Individuals in the SSDI group read the expository passages and answered the comprehension questions. Next, they scored their answers and then proceeded to the next story. Students in the TFI group read one story each session and completed the questions. Following this, the group identified and discussed the appropriate answer to each of the questions. Additional questions were posed by the teacher. Students in each of the experimental treatments worked in comprehension materials 30 minutes per session for 2 days each week for 10 weeks. The students in the control group worked in the regular basal program.

An analysis of covariance was conducted to determine which instructional treatment was most effective for developing vocabulary, comprehension of explicitly stated meanings, and comprehension of implicitly stated meanings. A *t*-test was used to determine if each of the methods was effective for developing comprehension.

It was found that the type of instruction, TFI, SSDI, or regular basal, did not result in a significant difference in performance for comprehension of explicitly and implicitly stated meanings or for vocabulary development. However, each of the instructional methods did prove effective (significant at the .01 level) for developing comprehension of implicity stated meanings. Conversely, none of the instructional methods favorably improved explicitly stated meanings. Both TFI and SSDI groups significantly improved their vocabulary scores, but the regular basal group did not improve significantly. Low-average readers being instructed using TFI or SSDI made a significant ($p < .01$) improvement in comprehension of implicitly stated meanings. However, the performance of high-average readers was not significantly increased by either of the two instructional treatments.

ZEN AND THE ART OF READING: READING WITH MIND, BRAIN AND BODY

Order No. 8015610

LEVY, JACK JAY, PH.D. *Claremont Graduate School*, 1980. 142pp.

Schooling's emphasis on cognitive growth has tended to limit the teaching/learning of reading to the head rather than to include the entire mind-brain body system. Not only is reading as the interpretation of print a narrow, delimiting view of the reading process, but also reading only in verbal symbols is just as restrictive. Our reading-thinking processes are elaborate and still very much mysterious. They not only involve the entire body, but even extend beyond the physical being. The mind-brain-body system reacts to and interacts with an ever-changing reality. There is much of this kaleidoscopic reality that is sensed non-verbally as well as subliminally.

Reading theory and instruction has anchored its major assumptions to the scientific models of physics, medicine and behavioristic psychology. Currently, however, the models of physics and medicine are experiencing profound paradigm shifts. Since Einstein, physics has stepped beyond the world of absolutes into the realm of probabilities that incorporate an intuitive, subjective, holistic mode of knowing. Medicine is merging the science of medicine with the art of healing as a developing framework for a holistic health environment. Behavioristic psychology, initiated in the scientific image of physics, now appears to be limited in its usefulness to investigate the nature of consciousness and other psychologies are now vigorously pursuing this research.

These paradigmatic shifts in physics, medicine and psychology are revealing patterns that connect all humans to all things. These patterns are hierarchal, holographic networks of intelligence and memory in all things - organic and inorganic. These patterns create a common knowledge of oscillatory rhythms of movement and non-movement to form varying levels of consciousness (intelligence). This common knowledge is a prior knowledge not normally acknowledged by reading theorists and practitioners. As the disciplines of physics, medicine and psychology move beyond their reductionistic views, reading theory is stagnating and still follows their limited models.

Contemporary calls for the return to the basics in reading is anachronistic: that which is truly basic to the reading process is not the surface manifestations of phonetic or structural analyses, word recognition or the various sub-skills of comprehension, but rather the basics reside in a deep structure that moves beyond Chomsky's interpretation to a "holonogramic" universe that extends beyond Einstein. These basics are mediated by an evolutionary triune brain which goes beyond left and right hemisphere.

Through investigating the changing realities of the expanding paradigms of physics, medicine, psychology, neuro-science and linguistics, a theory of transpersonal reading is developed and classroom procedures are suggested. Transpersonal reading makes use of other ways of knowing, not just the prevalent linear, logical mode of experiencing. Transpersonal reading blends the mystical and the scientific, the intuitive and the logical into a theory of the practical that is aomebic in character, and holistic in scope. Transpersonal reading attempts to understand the basics of reading at the fundamental level of patterns, rhythms, resonances and symmetries.

In the classroom transpersonal reading allows for a dynamic bonding between student, teacher and print. The reader can now bring much more than a cognitive skill to the printed page. Print can be handled more comfortably, more confidently and more enjoyably when the reader creates his/her own locus of control over his/her primary sensing and to take full responsibility for learning.

AN INVESTIGATION OF THE EFFECTS OF READING PURPOSES ON THE COMPREHENSION OF SECOND-GRADE STUDENTS

Order No. 8028276

LICKTEIG, M. JOAN, PH.D. *The University of Iowa*, 1980. 132pp. Supervisor: Professor Jack Bagford

Purpose. The purpose of this study was to determine if high average second-grade students would perform significantly better in reading comprehension when they read stories with a teacher purpose or a student purpose than when they read stories with no stated purpose.

Procedures. The subjects, thirty second grade students, were selected from parochial schools in Dubuque, Iowa. Selection of subjects was based on ability and achievement. Students in the study had IQ scores of 100 or above, as indicated on test scores from the *Cognitive Abilities Test*. Reading achievement was based on teacher judgment (reading groups) and on Scott, Foresman *Reading Unlimited* end-of-level mastery test scores. Accepted reading mastery test scores were between 43 and 50.

The thirty subjects were divided into three equivalent groups, considering ability, achievement, and sex. The three groups were randomly assigned to one of three treatment sequences. The three treatments were: (a) no stated purpose for reading; (b) a teacher-initiated purpose; and (c) a student-identified purpose. All three groups read all three stories in the same order, but with a different treatment for the stories. The sequence of presentation of treatments was ordered in accordance with a Latin Square design.

Students read the three stories during individual sessions with the investigator. Upon completion of silent reading, each student retold the story; retellings were tape-recorded. Tape-recordings were made into typescripts which were scored to determine the number of propositions included in the retelling. The comprehension score was a percentage score obtained by comparing the number of propositions included in the retelling with the number of propositions contained in the original stories. The three stories were divided into propositions (idea units); each verb in the sentence determined a proposition.

Total comprehension scores for the three treatments were analyzed through analysis of variance to determine whether any one treatment was significant.

Results. (1) Average comprehension scores were not significantly higher when students had reading purposes than when they did not have reading purposes. There were not significant differences among scores in the three treatments. (2) Story effect was not a major consideration of the study, but analysis of the data revealed a significant difference among the stories. Students retold a greater number of propositions following one story than they did with the other two stories. (3) The difference between the scores of boys and girls was not statistically significant; neither was the purpose by sex interaction significantly different.

Conclusions. Within the limitations of this study and in light of the findings, the following conclusions were drawn: (1) Reading purposes do not significantly influence the comprehension scores of second-grade students, as measured by the percentage of propositions included in story retellings. (2) Type of reading purpose does not significantly affect comprehension scores of high average second-grade students.

AN INVESTIGATION OF FIRST AND SECOND GRADERS' KNOWLEDGE OF ORTHOGRAPHIC STRUCTURES IN RELATION TO READING ABILITY

Order No. 8015215

LINCOLN, NANCY GRIFFITH, PH.D. *The University of Wisconsin - Madison*, 1980. 157pp. Supervisor: Professor Dale D. Johnson

This study was designed to investigate the relationship between first and second grade students' ability to recognize orthographic regularity patterns and their ability to read words in isolation and in context. The central purpose of the investigation was to determine if greater knowledge of orthographic regularity patterns related to better reading ability in young readers. Prior research has found for elementary grade children a correlation between knowledge of orthographic regularity patterns and amount of years in school, but had not related knowledge of orthographic regularity patterns to reading ability.

Four specific questions were explored in the study: (1) At what reading level did the subjects perform above the chance level on the orthographic regularity task? (2) Was there a positive correlation between ability to recognize orthographic regularity patterns and ability to read words in context? (3) Was there a positive correlation between ability to recognize orthographic regularity patterns and ability to read words in isolation? (4) Was the correlation higher between orthographic scores and reading in isolation scores than the correlation between orthographic scores and reading in context scores?

Thirty first and thirty second graders were the subjects in this study. They were tested four times during one school year to measure their ability to orally read words in isolation and in context, and to measure their ability to recognize orthographic regularity patterns.

The test results from each session included each subject's reading level score on the graded word lists and on the graded passages and their raw score out of a maximum of 20 on the orthographic regularity task. Thus, at the end of the four sessions, there were for each subject, four orthographic regularity scores, four reading of words in isolation scores (graded lists) and four reading of words in context scores (graded passages).

The data then were analyzed first by means of two tests of proportions to determine if when the subjects' orthographic regularity scores first rose above chance, the majority were reading on one specific level. Then correlation coefficients were found between orthographic scores and reading in isolation, and orthographic scores and reading in context scores by means of a Kendall Tau correlation. Also, two supplemental regression analyses were done to determine if reading scores could be predicted from orthographic scores.

The results indicated that more successful beginning readers were the ones who had a greater knowledge of orthographic regularity patterns, though the ability to recognize orthographic patterns did seem to be established by the time the subjects were reading on an end-of-first-grade level. Knowledge of orthographic patterns related to both the ability to read words in isolation and in context. It also might be used to predict with a reduction in error, students' reading levels. Also, there were some indications that orthographic scores and reading scores increased together.

CHILDREN'S INFERENTIAL COMPREHENSION OF PRAGMATIC CAUSAL RELATIONS IN READING: A STUDY OF SOME SEMANTIC, CONTEXTUAL, AND SYNTACTIC VARIATIONS

Order No. 8027728

MORGAN, ARGIRO LOUCHIS, ED.D. *University of New Orleans*, 1980. 282pp.

One hundred forty-four fourth-grade, middle-class children of average or above-average reading ability served as the subjects of a psycholinguistic experiment designed to study children's inferential reading comprehension of pragmatic causal relations. Twelve target structures were constructed in order to invite inferences pertaining to the event-frame of cause-effect statements. The structures were systematically varied according to the three independent variables of the study: semantics, context, and syntax. Within the semantic way, there were two global levels of difficulty: six causal statements previously judged by adults as relatively easy to interpret, and six causal statements previously judged by adults as relatively difficult to interpret. Three contextual conditions were employed for the presentation of the target structures: isolated sentences, isolated sentences preceded by a picture, and target structures embedded in paragraphs. The cause-effect structures were phrased in two different syntactic forms: two simple sentences without an explicit causal connective, and one complex sentence with the explicit causal connective "because."

Subjects responded in written form in WH-questions designed to elicit both literal and inferential comprehension of the twelve target structures. Subjects were exposed to all semantic topics of the study. However, the treatment conditions were systematically varied so as to expose each subject to each contextual condition and to each syntactic variation an equal number of times within each of the two global levels of semantic difficulty. The treatment conditions were ordered randomly for every subject in the test booklets.

Data from the inferential questions, analyzed by analysis of variance appropriate for a three-way factorial repeated measures design, indicated that: (1) The relative semantic difficulty of the pragmatic causal statements significantly affected the subjects' ability to specify the event-frame implied by the target structure ($p < .01$); (2) A picture from which the implied context could be interpreted facilitated to a statistically significant extent children's inferential comprehension of pragmatic causal statements ($p < .01$). Although no statistically significant effect was found for embedding the target structures within a paragraph, the data partially supported the view that the paragraph context improved children's ability to specify the event-frame of the target structures, especially when the structures were difficult to interpret; (3) No statistically significant effect was found for the syntactic variable.

A descriptive analysis of the data from the literal measure indicated that: (1) Literal questions were easier to answer than inferential questions. (2) There were few differences across the three contextual conditions. (3) More inferential information was contained in literal answers when the questions followed structures presented with additional context. (4) The means for the two syntactic conditions varied little.

Results indicated that if the referent to a specific lexical item is unclear, or if a specified relationship is vague, comprehension suffers unless relevant, previously existing knowledge presumably encoded in *schemata* can be accessed for interpretation. Providing a situation or event-frame for a given sentence increased the probability that a relevant *schema* could be applied for interpreting difficult-to-understand causal statements. On the other hand, if the target structure referred to experiences frequently encountered by children, and presumably encoded in well-formed *schemata*, little difficulty was experienced in interpreting the situation pertaining to the implied content of the causal statements.

Findings supported semantic integration theory which views language as a set of cures which a reader can utilize to construct meanings applicable to a given text. The data suggested that comprehension is a dynamic, interactive, constructive process whereby the reader brings experiences to the printed page to comprehend a written message.

EFFECTS OF PRE-ORGANIZED READING MATERIAL ON THE COMPREHENSION OF FOURTH AND FIFTH GRADE READERS

Order No. 8025953

RADEBAUGH, MURIEL ROGIE, PH.D. *Washington State University*, 1980. 105pp. Chairperson: Gerald H. Maring

This study was designed to investigate one aspect of a psycholinguistic theory of reading, namely, that readers identified as "difference" poor comprehenders may experience difficulty in comprehending written discourse because of their inability to group the separate words into units of meaning. Specifically, the following questions were raised: (1) What are the differential effects of three grapho-syntactic organizations on reading comprehension? (2) Will the three grapho-syntactic organizations have differential effects for good and poor comprehenders? (3) Will the three grapho-syntactic organizations have differential effects due to the grade level of the readers? (4) Will the amount of time required for completion of the three comprehension measures differ for good and poor comprehenders?

Forty-four fourth and fifth grade students enrolled in three elementary schools during March and April, 1979, served as subjects. Two groups of subjects were chosen, good comprehenders, who had achieved scores above the 75th percentile (local norms) for vocabulary and reading comprehension, and "difference" poor (Cromer, 1968) comprehenders, whose vocabulary scores matched those of good comprehenders but whose comprehension scores fell below the 75th percentile. Scores were obtained from the previous year's administration of the Comprehensive Test of Basic Skills (1974). Subjects were also matched for sex and grade level.

Three cloze tests functioned as measures of comprehension, the dependent variable of the study. Each cloze test conformed to one of three grapho-syntactic organizations: (a) regular paragraph format, with the passage typed as it would normally appear in print; (b) meaningful units,

with sentences pre-organized into "thought" units corresponding to the sense boundaries identified by good comprehenders; (c) sentence fragments, with sentences pre-organized into units which did not correspond to the sense boundaries identified by good comprehenders.

Data consisted of the correct responses for each cloze test (using exact replacement scoring) and the amount of time in minutes required for test completion. Significance of differences among the three independent variables (grapho-syntactic organization, comprehension ability, and grade level) was tested by a three-way analysis of variance.

Significant differences were found between the following groups: (a) fifth grade and fourth grade subjects ($p < .01$); (b) good and poor comprehenders ($p < .001$); (c) grapho-syntactic organization ($p < .001$).

Further analysis, utilizing Scheffe's technique, revealed that significant differences for the three grapho-syntactic organizations lay between the paragraph and meaningfully pre-organized formats ($p < .001$) and between the paragraph and sentence fragment formats ($p < .05$), paragraph format being comprehended less well. Differences between the meaningfully pre-organized and sentence fragment formats did not reach significance at the 0.05 level.

Two-way interactions among the three variables were not statistically significant ($p > .05$). The triple interaction effect, however, exceeded the 0.05 level of significance, with the interaction of the fifth grade, good comprehender, and meaningfully pre-organized sentence variables being the most likely to account for the significant findings.

A two-way analysis of variance tested the significance of differences among mean amounts of time required for test completion. No significant differences were found between fourth and fifth grade subjects or between good and poor comprehenders.

The data indicated that, for the study's fourth and fifth grade subjects, paragraph format was comprehended less well than were the two pre-organized formats. This pattern emerged for fourth and fifth grade subjects, and for good and poor comprehenders. Adequate comprehension was not a function of the amount of time spent in reading since differences among groups did not reach the 0.05 significance level.

THE INFLUENCE OF INTRABOOK READABILITY VARIATION ON READING COMPREHENSION

Order No. 8021127

REEVES, HAROLYN HICKMAN, ED.D. *Mississippi State University*, 1980. 243pp. Director: Dr. John P. Wollenberg

The purpose of this study was two-fold: (1) to determine the effect of intrabook readability variation on the reading comprehension performance of intermediate students as measured by the intrabook readability test, and (2) to determine the relationship between the intrabook readability test, a typical informal reading inventory, and teacher assessment of pupils' instructional reading levels.

The population for the study was composed of 234 fifth grade students enrolled in a public middle school located in Northeast Mississippi. Subjects were selected through the use of a stratified sampling technique. Thus, the sample consisted of students who had been placed at the 5th grade instructional level in reading by their teachers.

Two testing instruments were developed by the researcher and used for the collection of data. The intrabook readability test, consisting of 11 cloze test passages taken from a 5th grade reader, *Images*, was used to test reading comprehension. The 11 cloze test passages for the intrabook readability test were selected and scaled according to the Fry Readability Formula. The second test instrument, developed by the examiner and used in the study, was a typical informal reading inventory. This informal reading inventory consisted of test passages for oral reading, silent reading, and comprehension checks at grade levels, preprimer to sixth grade.

Four hypotheses were tested. Percentage charts and dependent *t* tests were used to analyze the data. A significance level of .05 was used in the analysis of the t values. The findings of the study indicated the following:

(1) The reading comprehension of the children was significantly affected by the intrabook readability variation within the basal reader, *Images*. Beginning with the 5th grade cloze passage, 57 percent of the sample was reading at a frustrational reading level. The percentage of children frustrated at a particular reading level increased as the levels of difficulty of the test passages increased.

This finding suggested that intrabook readability variation should be considered as an important content validity factor in the construction of placement tests such as informal reading inventories and cloze procedures, etc. Otherwise, instructional reading level scores based on performance with one or two book samples has external validity to only a portion of a book, in some cases a very small portion of a book. Since no systematic pattern of readability variation was found with the basal reader studied, it appears that there is no way of knowing which part of a book is predicted by an instructional reading level short of measuring all of its contents for readability.

(2) The intrabook readability test, used in the study to measure reading comprehension, yielded a mean reading placement score that was significantly different from the mean reading placement score yielded by teacher assessment.

(3) The informal reading inventory, used in the study to measure reading placement, yielded a mean reading placement score that was significantly different from the mean reading placement score yielded by teacher assessment.

(4) Using a confidence level of 95 percent, the intrabook readability test mean placement score more closely approximated the mean placement score, as measured by teacher assessment, than did the mean placement score yielded by the informal reading inventory.

In light of these findings, the researcher recommended that reading teachers use intrabook readability variation checks to aide them in the development of testing and teaching tools, especially in the area of reading comprehension. If used correctly, readability information should help to bring improvement in reading comprehension scores. Fitting the child to the correct reading material is the key to success in reading.

A PIAGETIAN MODEL OF READING COMPREHENSION

Order No. 8014508

ROY, SIDONIA B., PH.D. *Temple University*, 1980. 146pp.

The study proposes a model of reading comprehension based upon Piagetian theory. Comprehension is defined as a process of assimilation of thoughts represented by writers in graphic language, accompanied by accommodation to the context created by writers. Readers are assumed to construct context by coordinating relations among linguistic units into an infralogical whole. Infralogical structures are assumed to be crucially involved in reading comprehension, together with those structures which are necessary to draw appropriate inferences from a particular text. In the present study, the text required logico-mathematical inferences of the concrete operational stage.

The empirical test of the model included a sample of 90 children, from grades three through five, 15 boys and 15 girls at each grade level. The children's levels of infralogical and logicio-mathematical development were assessed respectively by a test of spatial reasoning and a logico-mathematical battery. The logico-mathematical battery included five logical seriation and five logical classification tasks. Reading comprehension was tested by the Paragraph Analysis Test (PA) and the Degrees of Reading Power Test (DRP). Each test required the coordination of meaning across the sentences of a paragraph, while in addition, the PA test required the ability to draw logico-mathematical inferences of the concrete operational stage.

The effects of the developmental variables upon the PA Test scores were tested by means of a 2 x 2 ANOVA. A two-way MANOVA was used to assess the effects of the developmental variables upon PA subtest scores, while a *t* test for paired samples tested the relative difficulty of the two subtests. The effects of the infralogical variable and of grade level upon the DRP test scores were assessed by means of 2 x 3 ANOVA.

The results indicated that infralogical ability had significant effect upon the scores of both reading tests, and that logico-mathematical ability had significant effect upon the PA Test scores. These effects were significant at $p < .01$. The results also indicated that the PA subtest requiring complex inferences was more difficult than the subtest requiring simple inferences, at $p < .001$. Furthermore, neither the logico-mathematical nor the infralogical variable had significant effect upon the score of the PA subtest requiring complex inferences.

The results are discussed as lending preliminary support to the model. Negative results are discussed within the model, suggesting that higher levels of logico-mathematical developmental than those assessed by the study might be required to draw complex inferences in reading.

The task analysis approach, with identification of task-related mental structures, is suggested as a possible solution to the problem of construct identification and that of construct validation in reading comprehension. The educational implications of the study are discussed in terms of the need to apply dynamic aspects of Piagetian theory to classroom learning, with less emphasis upon the notion of stages and that of readiness.

THE EFFECT OF FOLKLORE ON THE READING COMPREHENSION AND ATTITUDES OF THE ALASKAN ADOLESCENT NATIVE

Order No. 8020975

SIMS, CELIA MARGOT, PH.D. *Hofstra University*, 1980. 179pp.

This investigation evolved from a search for stronger relationships among the varied cultural systems confronting the Alaskan adolescent natives attending a regional high school. The intent of this study was to stimulate queries into the adolescent's approach to resolving his/her "bilocation." The focus of the investigation was to determine whether or not the reading comprehension of the Alaskan adolescent natives and Alaskan adolescent non-natives was improved by reading native folklore as compared to Alaskan adolescent natives and Alaskan adolescent non-natives who read non-ethnic-based literature. The specific purposes of the study, therefore, were to discover if Alaskan adolescent natives and Alaskan adolescent non-natives who work with ethnic-based reading material when compared to Alaskan adolescent natives and Alaskan adolescent non-natives who work with non-ethnic-based reading material would (1) achieve increased reading comprehension, and (2) improve through attitudinal changes their perceptions of themselves, i.e., self-concept, as part of their school and as readers.

The sample population was drawn from the Anchorage School District in Anchorage, Alaska. Thirty-two Alaskan adolescent natives and eighty-nine adolescent non-natives comprised the treatment group, and received instruction with ethnic-based materials. Nine Alaskan adolescent natives and ninety-two Alaskan adolescent non-natives comprised the control group, and received instruction with non-ethnic-based materials. The average class level was eleventh grade, and the average age of the subjects was 16.7 years. Most of the subjects had lived in Alaska for approximately ten years; more than half the sample population were female.

The experimental design was a control group, pretest and posttest design, using a 2 x 2 factorial design. The treatment modes were: three cloze procedures, Comprehensive Test of Basic Skills, Draw-A-Person, and two questionnaires of general attitude toward school and attitude toward reading. The results from the measures were analyzed for trait interaction (native and non-native) and course interaction (ethnic-based and non-ethnic-based courses) using a two-way analysis of covariance (ANCOVA) for a significant F ratio. Relative frequency percentages were used to describe certain characteristics, e.g., questionnaires. All hypotheses were tested at the .05 level of significance.

Findings indicated: (1) For the cloze procedure, both ethnic groups were significantly different in trait interaction and course interaction. (2) For the standardized reading procedure, a significant difference occurred only between heterogeneous groups, regardless of ethnicity.

DIFFERENCES BETWEEN GOOD/AVERAGE COMPREHENDERS AND POOR COMPREHENDERS ON RECALL OF EXPOSITORY MATERIAL AT EACH LEVEL OF USE OF TOP-LEVEL STRUCTURE AS AN ORGANIZATIONAL STRATEGY OF RECALL

Order No. 8019983

SMISEK, SHARON O'CONNELL, ED.D. *Florida Atlantic University*, 1980. 239pp.

Two basic problems were addressed in this study: (1) Was there a significant difference between good/average and poor comprehenders on level of use of top-level structure as an organizational strategy for recall of expository material? (2) Was there a significant difference in recall at each level of use of top-level structure for good/average comprehenders and for poor comprehenders?

To investigate these problems, three phases of research were conducted: At Phase 1, a standardized reading test was administered to determine the student's level of ability in comprehending literal and inferential types of questions and level of vocabulary. The student's level of prior knowledge of the strategy and his/her performance in free recall were assessed from protocols written in a pretest.

At Phase 2, an experimental manipulation was introduced in which all students received intensive training in the nature of top-level structure, in how to find it in expository material, and in how to use it to organize written, free recall. Immediately following instruction, use of the strategy and free recall were assessed from protocols written.

The final phase of the investigation was collection of data from test packages distributed three weeks after Phase 2 concluded. Use of the strategy and free recall of the passages read previously were assessed from protocols written.

At each phase, equivalent tests were used. This enabled between-subject comparisons to be made so that it could be determined if there was a significant difference between groups of students classified by comprehension ability at three phases of the study in (a) level of use of the strategy, and (b) recall. Passages written in adversative format and attribution format were considered.

Analysis of the data collected in the study disclosed the following: (a) Good/average comprehenders spontaneously used adversative top-level structure 2.4 times as often to organize recall as did poor comprehenders. (b) Good/average comprehenders used attribution top-level structure to organize recall twice as often as did poor comprehenders. (c) After instruction, good/average and poor comprehenders did not differ significantly on level of use of adversative top-level structure. (d) After instruction, good/average comprehenders used attribution top-level structure 2 times as often to organize recall as did poor comprehenders. (e) On a delayed recall task, good/average comprehenders used adversative top-level structure 3.3 times as often to organize recall as did poor comprehenders. (f) On a delayed recall task, good/average comprehenders used attribution top-level structure 4.75 times as often to organize recall as did poor comprehenders. (g) At all phases of the study, both good/average and poor comprehenders who used the adversative top-level structure to organize recall remembered more from the passage than those who did not use it, although results were not statistically significant at Phase 3 for good/average comprehenders. (h) At all phases of the study, good/average comprehenders who used the attribution top-level structure to organize recall remembered more from the passage than those who did not use it. (i) At Phase 1, the scores of the poor comprehenders who used the attribution top-level structure were not significantly higher than the scores of non-users. However, after instruction, on both immediate and delayed recall tasks, the poor comprehenders who used the attribution top-level structure to organize recall remembered more than the non-users. (j) Good/average comprehenders at all phases of the study remembered more from the adversative passage than from the attribution passage. In delayed recall students remembered almost 2 times more from the adversative passage than from the attribution passage. (k) Poor comprehenders remembered 4.4 times more from the adversative passage than from the attribution passage on a delayed recall task. A significant difference between passage types was not found for poor comprehenders at Phases 1 or 2.

The study may have significance for community college instructors and those interested in reading research.

PSYCHOLINGUISTIC PROCESSES IN READING

Order No. 8019357

SPITZER, ROSINA, PH.D. *The Fielding Institute*, 1979. 197pp.

The problem this study seeks to explore is, "Can a reading approach based on viewing reading as a process of making sense and viewing readers as active developing learners with strengths, develop reading proficiency in readers who have been labelled as problem readers?"

The hypothesis is that the readers will improve in the quality of oral reading responses which differ from the printed page (miscues), as measured by the Reading Miscue Inventory, after a minimum of sixteen interventions based on psycholinguistic processes.

Twenty-four subjects were identified in grades 5-8 as being "Ineffective" or "Somewhat Effective" readers. Aides were assigned to take them out of their classrooms twice a week for 1/2 hour of instruction for sixteen sessions. Half of the students were given instruction on a one-to-one basis (Individual Subjects). The other half of the students received instruction in groups of six to eight (Group Treatment Subjects), but before the Group Treatment Subjects' instruction began, they had a latent period of two months (Latent Group Subjects). Thus they served as their own comparison group.

A language experience approach was used for instruction based on psycholinguistic processes that emphasize that the main focus of reading is to make sense of what is read. Aides would read a short story to the students. The students were asked to re-tell the story while the aide wrote it down exactly as told. The students were then invited to read what had been dictated. The strategies the aides used were to encourage the students to view reading as a search for meaning, rather than an exact process. Students were told to skip or guess words that they didn't know so that meaning would not be blocked by concentrating on isolated parts of language.

The quality of miscues that were measured were "Corrections," "Graphics," "Sound," "Semantics," and "No Meaning Change." The Individual Subjects showed a significant change increase in "Corrections" and "No Meaning Change." The Latent Group Subjects showed a significant change increase in "Corrections," while the Group Treatment Subjects showed a significant change increase in "Corrections" and a significant decrease in "Graphics" and "Sound." The miscue variables of "Corrections," "Semantics" and "No Meaning Change" produced a comprehension score that indicated whether or not there was "No Loss of Comprehension." The Individual Subjects and the Group Treatment Subjects showed a significant change increase in "No Loss of Comprehension" while the Latent Group Subjects showed no gain.

Students in this study, being in grades 5-8, who apparently had not made much progress in reading for as much as four to seven years, did show a statistically significant breakthrough in reading comprehension through the increased quality of their miscues in only eight hours of overtime instruction. This study did confirm what the researcher had observed in her practice during five years of working with "labelled" learners, namely that many times the learner's failure to read is ascribed to the learner, rather than to the instructional program. These students had received the typical school reading program of concentrating on repeated hierarchical isolated skills practice, which in fact, blocked their reading, and instead of being given alternative ways of learning, they received bigger "doses" of the same method.

LANGUAGE AND PERCEPTION AS PREDICTORS OF READING COMPREHENSION

Order No. 8028649

TEITEL, BEATRICE, PH.D. *New York University*, 1980. 108pp. Chair: Professor Bernice E. Cullinan

The purpose of this study was to determine the extent to which language and perceptual factors predict reading comprehension. A perceptual-deficit hypothesis, linking lags in visual, auditory, or intersensory processing to reading failure, has been widely accepted. Recently, evidence points to a different explanation for reading failure--verbal deficiency. Those who consider reading a perceptually based process suggest that the perceptual functioning of the prereading child will predict later performance in reading comprehension. Many psycholinguistic proponents, however, rely upon the child's language functioning as a better predictor of reading comprehension. This study was designed to determine the extent to which perceptual and/or language factors in the prereading child predict reading comprehension at the end of first grade.

The original participants were 290 randomly selected children from 28 kindergarten classes of nine schools located in an urban area. At the end of first grade, the final sample was 198 children (90 boys and 108 girls).

Three instruments were used in this study. Two of them, the 10 subtests of SEARCH (Silver & Hagin, 1976) and three subtests of the Test of Language Development (TOLD) (Newcomer & Hammill, 1977) were administered at the end of the kindergarten year. Individual component scores of SEARCH yielded a profile of perceptual assets and deficits; semantic and syntactic competencies were assessed by the TOLD. The third instrument, the Comprehension subtest of the Metropolitan Achievement Test (METRO), Primary 1 Level (Farr, Prescott, Balow, & Hogan, 1978) was administered at the end of first grade, and was used as the dependent variable.

A factor analysis of the results of the SEARCH subtests indicated that three factors account for 52.5% of the total variance: verbal/cognition, visual perception, and auditory perception. The same factor analytic process applied to the three subtests of TOLD indicated that only one factor, language, accounted for 58.1% of the common factor variance. Subsequently, a factor analysis of all 13 subtests of both SEARCH and TOLD was performed. Scores on the four factors that emerged, Language/Cognition, Visual, Sensory/Spatial, and Auditory, were used as the predictor variables. These four factors were entered into a step-wise multiple regression analysis, using the comprehension measure as the criterion variable. Although the independent variables were correlated, two of the four factors emerged as significant predictors of reading comprehension when placed in a step-wise multiple regression analysis. The Language/Cognition factor, the first variable to enter the step-wise regression, was the most significant predictor ($F = 116.82$, $p < .01$) and explained 22% of the variance in reading comprehension. Sensory/Spatial, although significant ($F = 5.91$, $p < .05$) added only 3% additional variance as it entered in Step 2. The two perceptual factors, Visual and Auditory, were not significant and did not contribute to prediction of reading comprehension.

Thus, the findings indicate that language and not perceptual factors are the best predictors of reading comprehension.

The results challenge the traditional notion that visual and auditory perceptual factors are of primary importance in the process of learning to read and supports the theoretical view that links language with reading. Although the children in this study were taught beginning reading in first grade through seven different basal reading series, their semantic and syntactic knowledge as well as experiential background were predictors of reading comprehension, regardless of the approach.

THE EFFECTS OF UNDERLINING AND STUDY TIME ON THE COMPREHENSION AND RECALL OF PROSE MATERIALS

Order No. 8020006

THOMPSON, THOMAS JOHN, PH.D. *Georgia State University - College of Education*, 1980. 107pp.

The importance of written material in the learning process is indicated by the vast amount of information available in textbook and related written forms. A great deal of research has focused on the ways in which written narrative, or prose material, is used in education and on how the information is processed by the learner. The determination of how best to enhance learning from prose material has been an area of active research interest. The present study focuses on underlining methods as types of active learner response modes which serve as orienters in learning from prose material. The effects of study time variations on recall were investigated as well.

Subjects for the experiment were high school students enrolled in a gifted program in the ninth and tenth grades. A 4 x 2 x 2 analysis of variance was used to determine significance of four levels of underlining with two levels of study time and two recall periods within them. The levels of underlining were: (1) reading only; (2) subject-generated underlining of one important sentence in each paragraph; (3) experimenter-provided underlining of one sentence of high structural importance; and (4) experimenter-provided underlining of one sentence of low structural importance. The study time levels were: (1) limited study time of 15 minutes; and (2) longer study time of 30 minutes. The dependent variable was a recall test which consisted of 32 open-ended questions and was administered immediately after the reading passage and again one week later.

The comprehension subtest of the Nelson-Denny Reading Test was used to determine homogeneity of reading ability among subjects.

A three-way analysis of variance was conducted using: (1) total recall scores; (2) repeated using scores indicated as measures of intentional learning; and (3) repeated using scores indicated as measures of incidental learning. The results of the three analyses were consistent in that underlining methods and study time variations produced no significant differences. The effect of recall over time within subjects, however, did achieve significance. A sensitivity analysis was conducted using delayed recall scores for reading only subjects and subject-generated underlining group members. One of each of these groups had immediate recall testing exposure, and two additional groups did not receive immediate recall testing. The analysis confimed that immediate recall testing enhanced delayed recall significantly.

The results indicated that underlining did not serve as a significant orienting stimulus in the present study. This finding has support from some previous research and conflicts with others. Procedural differences in analysis of data have been suggested as a partial reason for this conflict in findings.

The results showed that study time in excess of what is necessary to process information is inefficient and not significantly effective. The use of immediate recall testing, however, significantly enhances delayed recall.

COLLEGE FRESHMEN DETECTION OF ENCODED SEMANTIC, SYNTACTIC, GRAMMATICAL, AND MORPHOLOGICAL ERRORS AND THIS DETECTION'S RELATIONSHIP TO READING COMPREHENSION

Order No. 8022967

TORRES, FRANK JOHN, ED.D. *New Mexico State University*, 1980. 142pp. Chairman: Dr. Leon E. Williamson

The objectives of this research were: (a) to draw a profile of the sensitivity of Claremont and California State Polytechnic University freshmen in recognizing morphological, syntactic, grammatical, and semantic encoded errors and (b) to determine the relationship between comprehension and types of linguistic errors identified by Claremont and California State Polytechnic University freshmen.

Subjects of the study were four groups of college freshmen randomly selected from the 1979-1980 freshmen classes at the Claremont Colleges in Claremont, California, and from the California State Polytechnic University in Pomona, California. One hundred and twenty students were randomly selected from those whose Scholastic Aptitude Test (SAT) scores were available. Thirty students from each university were chosen from those who scored above 550 on the verbal subtest of the SAT, and thirty students from each school were selected from those who scored below 400 on the verbal subtest of the SAT.

Seven major research hypotheses and sixteen null hypotheses to test the subsumed subhypotheses were developed. Two-way analysis of variance with two factors at each level (high and low SAT scorers; California State

Polytechnic University and Claremont Colleges) was performed on each of the linguistic variables and comprehension. A repeated measures analysis of variance was utilized to determine the entire group's sensitivity for a specific type of error. Subsequent protected *lsd's* were used to find significant mean differences ($p < .05$) between pairs of means whenever the analysis of variance yielded significant *F* ratios at the .05 level of significance.

Thereafter, a stepwise multiple regression analysis was utilized to determine which linguistic category best predicted the level of comprehension for all subjects and for each group of subjects at each college.

The instrument used in this study was an altered comprehension subtest of the Nelson-Denny Reading Test, Form D. With this instrument the researcher altered 100 word items according to four linguistic categories: morphology, syntax, grammar, and semantics. Each subject earned five scores. Four scores were based upon the number of times he/she underlined the encoded errors which did not make sense linguistically. A fifth score was determined from each subject's performance on the 36 comprehension questions for the eight reading selections of the Nelson-Denny Reading Test. These scores were converted into percentage scores by dividing the correct number of underlinings into the maximum number that could be correct. A subject could have a score profile like:

	Morphology	Syntax	Grammar	Semantic	Comprehension
Subject A	35%	44%	48%	16%	52%

Results indicated that: (a) proficient readers were more prone to detect encoded errors than less proficient readers; (b) the detection of encoded syntactic errors was the most accurate variable in the prediction of reading comprehension; (c) SAT level and college attended were also significant predictors of comprehension for subjects in the study; (d) generally, patterns of linguistic detection were very similar across college and SAT levels; (f) the finding that the detection of semantic encoded errors accounted for virtually the same amount of variability in comprehension indicated that the recognition of one of these types of encoded errors may be used to check for comprehension; and (g) the alteration of the comprehension subtest of the Nelson-Denny Reading Test constituted an appropriate instrument to study the relationship between the detection of linguistically encoded errors and reading comprehension, and constituted an appropriate instrument to evaluate how freshmen from the Claremont Colleges and the California State Polytechnic University applied linguistic cues when reading silently. In general, these findings were in concurrence with previous research on miscue analysis using oral rather than silent reading.

Implications regarding the usage of the instrument used in this study as well as implications relevant to the reading process were delinedated for reading instructors and researchers, as well as recommendations for future research and for consideration of other variables when the study's instrument is investigated across school and reading levels.

THE EFFECTS OF QUESTIONS WITH PIAGETIAN OPERATIONAL WORDS ON LEVELS OF INFERENCE

Order No. 8021010

TREMONTE, FLAVIA CLAUDIA, PH.D. *Fordham University*, 1980. 191pp. Mentor: Lillian C. R. Restaino

This study investigated the effects of logical operations in questions on processing inference, in particular, the effects of the words *all, some, so,* and *really* in stimulating an elaborated deep level inferential processing. In addition, the study examined the effect of underlining on level of inference processing.

The levels of inference were based on categorical, synonymous, and antonymous relationships between words in text (Level I) and on theories concerning the effect of conflicting information and additional elaborated information on making inferences (Level II).

Theoretical substantiation for the role of logical operations in stimulating deep level inferences was based on Piaget's theory of cognitive development, and on theories of the relationships of language and thought, constructive memory, and reasoning.

The experimental sample consisted of 312 sixth-grade students from two similar communities in Westchester County, New York, and was divided into three reading levels.

The experimental materials consisted of three alternate forms of an instrument designed by the investigator, which includes three stories and six postquestions. The first two questions were immediate recall questions, and the last four questions were inference questions. The inference questions for the first story were without the Piagetian operational words *all, some, so,* and *really*. The inference questions for the second story dealt with the Piagetian operational words, which were underlined for the third story.

Statistical analyses were concerned solely with those subjects who responded differently to one condition than they did to another. The McNemar Test for Significance of Changes was employed to compare those subjects who responded on Level II to questions without the Piagetian operational words but did not respond on Level II to questions with Piagetian operational words (R/NR), and those subjects who did not respond on Level II to questions without Piagetian operational words but responded on Level II to questions with Piagetian operational words (NR/R). The same type of comparison of (NR/R) and (R/NR) groups was made between each of the categories designated in the hypotheses. A chi-square test of homogeneity was utilized to compare differences in distribution of numbers of respondents for categories of classification words and for dimensional ordering words and between reading levels.

According to the McNemar Test, the number of Level II respondents was significantly greater in NR/R groups than in R/NR groups for both classification and dimensional ordering words. However, the chi-square test of homogeneity indicated that the number of Level II respondents was significantly greater for classification words than for dimensional ordering words.

There was no significant difference between R/NR and NR/R groups when the Piagetian operational words were underlined. However, supplementary analyses indicated that only when *so* was *underlined* did it generate a significantly larger number of respondents when compared with *so* not underlined and questions without *so*.

The major conclusions derived from the study were: (a) Piagetian operational words in questions can stimulate deeper levels of inferential processing; (b) at the sixth-grade level, students are able to process classification words more easily than dimensional ordering words; and (c) underlining is not a necessary cue when operational words are present in questions.

The three major implications of this study are: (a) levels of inference can be defined more precisely; (b) levels of inference responses are a function of the operational levels of the students; and (c) operational words are an effective strategy for signaling operations.

THEORIES OF READING: A REVIEW AND ANALYSIS OF AMERICAN RESEARCH ON PROFICIENT READING IN ITS SOCIAL CONTEXT

Order No. 8018626

WICK, THOMAS MEAD, PH.D. *University of Pennsylvania*, 1980. 360pp. Supervisor: Barbara Herrnstein Smith

The findings of research about reading have become an essential ingredient in our national pursuit of universal literacy. Several traditions of research have contributed to our view of the nature of reading, and four distinct theories of reading can be identified in the twentieth century "rhetoric of research."

The Problem. Theories of reading draw upon traditional theoretical views of language and thought. In the context of literacy, however, divergent traditions of psychology and linguistics have converged despite epistemological differences. As I use the term, a "theory" may be described as a way to organize a body of facts on a specific topic. In the case of reading, the organizing principles which must be considered include, in addition to purely epistemological considerations, practical and methodological issues concerning ways to define, teach and maintain *proficient* reading on a national scale. As such, the problem which this study addresses is how to order data about the act of reading so that they reflect clearly the theories of reading processes from which distinct types of data derive.

Method. To solve this problem, I suggest that reading research can be viewed as a rhetorical system which defines distinct theories of the process of proficient reading. By "rhetorical system," I mean a body of documentary and pursuasive discourse on a topic of social value. A rhetorical system of reading research can be considered to be a body of documentary data that defines and identifies reading proficiency according to explicit and implicit standards of literacy. Thus, theories of the process of reading can be seen to emerge in a rhetorical system in which each theory defines reading proficiency and provides documentary support for policies and programs designed to achieve reading literacy. Within such a system of documentary rhetoric, each theory of reading addresses different problems and topics, using different techniques of research. As such, each theory of reading gains its "systematic identity" as a contrastive position within the rhetorical system and particular studies may achieve an identity within specific theoretical traditions.

Findings. This study identifies major theories of the process of reading and describes the position of each theory within the system of documentation which has been developed for the pursuit of universal reading literacy in America. Chapters Two and Three describe two complementary theories of *decoding*, Reading as Apperception and Reading

as Translation. Chapters Four and Five describe two complementary theories of *comprehension*, Reading as Reasoning and Reading as Expression of the Self. A model of reading combines a theory of decoding and a theory of comprehension to form a unified perspective on the act of reading. Two models, one *synthetic* and the other *analytic*, have dominated modern reading research.

Conclusions. Established traditions of reading research form a rhetorical circle of "individualistic" theories of reading. Individualistic approaches isolate reading from the act of writing and they isolate reading from other socially related kinds of reception. A social model of literacy may combine the findings of reading research with research about writing to form a view of the process of "inscribed communication." Thus, a communicational perspective views reading among other means of reception and inscribed communication among other processes of communication.

Copies of the dissertations may be obtained by addressing your request to:

University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106

or by telephoning (toll-free) 1-800-521-3042